

REMARKS

Status of Claims

The claims were subject to a restriction requirement under 35 U.S.C. 121. Applicants elected with traverse to prosecute the claims of Group I which encompasses Claims 1, 3-6, 9 and 11.

Claim 1 has been amended to more clearly point out the invention. Claims 3-6, 9 and 11 are original claims and Claims 2, 7, 8 and 10 have been canceled.

Claim Rejection under 35 USC § 102 and 35 USC § 103

Claims 1, 3, 9, 11 were rejected under 35 U.S.C. 102(e) as anticipated by or, in the alternative under 35 U.S.C. 103(a) as obvious over Anderson et al (U.S. 6,592,999).

The claims can not be anticipated by Anderson. Applicants method is directed to the refinishing of multi-coated substrates. On page 4, first full paragraph of the office action the Examiner states that all three layer coatings can be used for refinishing (although not stated in Anderson) and "it would have been obvious of one of ordinary skill in the art to have refinished the car painting using all three layer coatings depending on defects". Applicants' claims are directed to a refinishing method. Further, Applicants process requires the application of two base coats whereas Anderson applies a primer and a base coat. Applicants apply a clear lacquer topcoat whereas Anderson applies a powder topcoat layer. A powder is not a lacquer. It is well known that for a reference to anticipate, the reference must disclose each and every step of the claimed process which clearly Anderson does not. The rejection based on anticipation by Anderson must be withdrawn.

In regard to the obviousness rejection of the claims, the Examiner stated that Anderson shows a method for forming multilayer coatings that have improved interlayer adhesion where the substrate is precoated with an electrocoat primer and a primer/surfacer and a gray solvent born primer

(first coat) are applied by spray application and a water born silver basecoat (claimed metallic effect pigment basecoat) is applied and a powder clear coating is then applied. The interlayer adhesion of the coatings is improved by the inclusion of adhesion promoters. The Examiner stated that such a multi-layer coating could be used for automotive refinishing.

The Examiner must look to the teachings of the entire Anderson reference and not conveniently ignore critical portions of the reference. Anderson's invention is directed to solving the problem of intercoat adhesion of various layers of a multi-layer coating and accomplishes that by incorporating boron containing compounds. This is clearly set forth in Anderson's Summary of the Invention (See Anderson, col. 5, lines 27-33). Applicants' do not use boron containing compounds in any of the coating layers of their process. Boron compounds are not used in the solvent borne first basecoat layer nor in the second water borne basecoat layer nor in the clear coat layer. The paint utilized in each of these layers is clearly set forth as "consisting of" which does not allow for the presence of boron containing adhesion promoters which are required by Anderson but not by Applicants.

Applicants' invention is directed to solving an entirely different problem from that set forth above by Anderson. As stated, Anderson solved an interlayer adhesion problem. Applicants, on the other hand, had the problem of reducing solvent emissions of a refinish coating system. As is well known, many areas have regulations concerning VOC (volatile organic content) of paints. To reduce such emissions, water based coating compositions can be used. However, when relatively thick water based coatings are used for the basecoat layer of 40 microns and above poor appearance of the resulting coating results. Such higher thickness levels of basecoats are needed for coatings that have poor hiding power. Applicants solution to this problem is to use two basecoat layers, the first being a solvent borne basecoat and the second a water borne basecoat.

When this combination of basecoats is top coated with a lacquer clear coating, a multi-layer finish is formed having an excellent appearance and superior physical properties. This is clearly illustrated in the Examples of Applicants application (see pages 10-11 of the specification). Example 1 shows a multi-layer coating formed according to the process of this invention utilizing a first solvent borne basecoat layer and a second water borne basecoat layer that is top coated with a clear lacquer. Example 2 shows the same multi-layer coating, except that only a water borne basecoat was used and top coated with a clear lacquer. The table on page 11 of Applicants' specification shows a comparison of the coated panels of Examples 1 and 2 wherein the appearance, gloss and flow and hardness of Example 1 (the invention) are significantly better than the use of only a water borne basecoat layer (Example 2) which is a surprising and unexpected result. Applicants have accomplished both a reduction of VOC and have improved the appearance and physical properties of the multi-layer finish with their claimed process. This certainly has not been taught or suggested by Anderson.

To make a meaningful rejection or have a sensible discussion about an invention, the terms of art commonly used by those skilled in the art must be clearly understood. In the rejection, the Examiner has equated a primer and primer/surfacer to a basecoat which is sheer nonsense. Primers and primer/surfacer and basecoats are very distinct and very different and serve entirely different purposes in multi-layer coatings and can not be equated. This would be like equating an arm to a leg. Yes, they are both parts of the body but try eating dinner with your leg or kicking a football with your arm.

To help the Examiner to understand terms of art used in the coating industry, the following two documents have been attached for the Examiner's review:

Automotive Paints and Coatings, Edited by G. Fettis, VCH publication (1st edition), pages 120 and 121 and

Ullmann's Encyclopedia of Industrial Chemistry (5th Edition, Vol. A, pp 517-519).

In the Automotive Paints and Coatings document, the various layers of a typical multi-layer automotive coating are set forth. As can be seen these various layers are clearly identified. In particular, Fig. 5-1 pictorially shows the various layers and in particular, the primer layer, the primer surfacer layer and the basecoat and topcoat layers. The primer surfacer layer fills in voids and provides a smooth surface that can be sanded if necessary but does not provide color to the resulting multi-layer finish and as shown in Anderson is a gray layer. The basecoat layer is the color providing layer of the multi-layer coating which is not sanded or treated in any manner but is top coated with a clear protective layer. Each of the layers of a multi-layer coating have a special purpose and are significantly different from each other.

Ullmann, in par 11.2, similarly discusses multi-layer automotive paint coatings and shows multi-layer paint coatings used on automobiles comprise primers, intermediate coats (also called fillers or surfacers) and top coats which presently comprise a basecoat and a clear coat which is the most popular top coat used on automobiles today. The topcoat provides a full deep gloss (wet look), highly brilliant metallic effects long lasting resistance against weathering and chemicals and is easy to polish and repair which is very different from the purpose of the primer surfacer layer.

In the Examiner's rejection, clearly the gray solvent born primer has been equated to a basecoat. These are two different layers and have different functions and a primer can not be consider interchangeable with a basecoat.

For sake of argument which is not supported by the Anderson reference, if one did apply the gray solvent born primer/surfacer as suggested by the Examiner and then apply the waterborne base coat, one would end up with a multi-layer composition that is illustrative of the

comparison Example 2 of Applicants' specification. To provide adequate hiding of the gray solvent borne primer surfacer, an extra thick coating of the waterborne base coat would have to be applied which as shown in the comparative Example results in inferior appearance and physical properties of the multi-layer coating when compared to the invention that is set forth in Example 1. There is no teaching or suggestion in Anderson to provide for two layers of basecoat, the first a pigmented solvent based coating layer and the second a water based coating layer as required by Applicants and is set forth in the amended claims.

Furthermore, Anderson uses a powder coating clear while Applicants, as set forth in the claims, use a lacquer clear. Lacquers are liquid coatings that dry by solvent evaporation not coalescence of a powder. Websters dictionary describes lacquers as coatings that dry to form a film by evaporation of a volatile constituent.

For all of the aforementioned reason, the obviousness rejection based on Anderson can not stand and should be withdrawn and the claims allowed.

Claims 4 and 5 were rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson, *supra*, in view of Kubitza et al. (U.S. 5,075,370) and Briselli et al. (U.S. 5,466,286). Neither Kubitza nor Briselli nor the combination of these patents make up for the many deficiencies of Anderson. The Examiner states that Anderson failed to teach the solvent borne primer is a two component coating composition. The rejection shows the lack of understanding of the basic terms of the coating art well known to those skilled in the art. Applicants Claims 4 and 5 are not directed to primers but to basecoats and as pointed out above these are entirely different coating components of a multilayer coating and each serve an completely different purpose. Primers are NOT basecoats and are not considered as interchangeable by those skilled in the art. Kubitza merely discloses that polyisocyanates can be used in coatings. Applicant process for forming a multi-layer coating wherein the basecoat is a two

layer basecoat of a solvent borne base coat and a water borne base coat is not even mentioned.

Briselli shows a waterborne base coat being applied to a two component polyurethane primer surfacer not a basecoat. As pointed out above, this is equivalent to the comparative Example 2 of Applicants specification which gave inferior result both in appearance and in physical properties to the dual layer solvent borne basecoat and water borne basecoat combination of Applicants' invention as shown in Example 1 of the specification. The rejection based on the above combination of references can not stand and should be withdrawn and the claims allowed.

Claim 6 was rejected under 35 U.S.C. 103(a) over Anderson, *supra*, in view of Kubitza, *supra*, Briselli, *supra* and Schlaak (U.S. 5,976,343). The many deficiencies of Anderson, Kubitza and Briselli have been pointed out above and will not be repeated. Schlaak does not overcome the deficiencies of these references even if combine therewith which is not suggest by Schlaak.

Schlaak adds nothing to the teaching of the already cited patents. Schlaak merely states that primers can contain crosslinking agents and a variety of pigments and can be topcoated with water based color and or effect-providing lacquers and that color providing pigments can be used in these lacquers. There is no teach or suggestion of Applicants invention as set forth in the amended claims of the use of a solvent borne basecoat and the subsequent application of a water borne basecoat and coating with a clear lacquer to form a multi-layer coating which has significantly better appearance and physical properties in comparison to multi-layer coating that only use a water borne base coat as taught by Schlaak. The rejection of Claim 6 based on the above combination of references should be withdrawn and the claim allowed.

SUMMARY

In view of the foregoing amendments and remarks, Applicants submit that this application is in condition for allowance. In order to expedite disposition of this case, the Examiner is invited to contact Applicants' representative at the telephone number below to resolve any remaining issues. Please charge any other fee due which may not be accounted for to Deposit Account No. 04-1928 (E.I. du Pont de Nemours and Company).

Respectfully submitted,



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